

## CLAIMS

I claim:

1           1. An integrated flywheel operated battery and motor for  
2 employment in a flywheel battery electric vehicle comprising:

3           a) a horizontally disposed cylindrical housing having an  
4 inverted conical base and a removable disc-shaped cover;

5           b) a horizontally disposed flywheel disposed in said  
6 housing for rotation about a rotatable axle;

7           c) a circular battery located about the periphery of said  
8 flywheel;

9           d) said circular battery having a casing having an inner  
10 vertical wall and an outer vertical wall;

11           e) first electromagnets, said battery casing having a  
12 plurality of rotor windings, each being wrapped around a said  
13 first electromagnet and mounted at spaced intervals along said  
14 inner wall and said outer wall;

15           d) said cylindrical housing having an axially disposed  
16 bearing within said cover for receiving said rotatable axle;

17           e) said housing conical base defining an aperture through  
18 the center thereof through which said axle projects;

19           f) said housing having an outer cylindrical wall having  
20 an inner side;

21 g) second electromagnets, said housing inner side having  
22 a plurality of field windings, each being wrapped around a  
23 said second electromagnet and mounted and equally spaced  
24 around the circumference of said wall inner side;

25 h) said housing cover having a depending cylindrical wall  
26 disposed coaxially immediately inside said battery casing wall  
27 and having a plurality of field coils mounted and equally  
28 spaced along an outer side of said depending wall;

29 i) a plurality of electrical brush locations along said  
30 axle, each corresponding to an individual said rotor winding,  
31 brush means for conducting electricity from said computer to  
32 said brush locations, and means within said axle for  
33 conducting electricity from each of said plurality of brush  
34 locations to said individual rotor windings;

35 j) a pair of primary electrical brush locations along  
36 said axle electrically connected to corresponding positive and  
37 negative poles of said battery, and brush means to conduct  
38 electricity from said primary brush locations to and from said  
39 computer;

40 k) means for constant electrically connecting said  
41 individual field coils with said computer under charge  
42 conditions; and

43 l) means for selective intermittent electrical connection  
44 of said individual field coils with said computer under motor drive  
45 conditions ;

46       whereby, when under a condition of load, said computer directs  
47       a constant flow of electricity from said battery to a selected  
48       number of said rotor windings, and an intermittent flow of  
49       electricity to said field windings to act as a drive motor, and  
50       whereby under a condition of charging said computer directs a  
51       constant flow of electricity to said rotor windings, and receives  
52       a constant flow of electricity from said field coils, which is  
53       conducted to said battery for charging under charge conditions.

1       2.   The integrated flywheel battery and motor according to  
2       claim 1, further including means connected with said computer for  
3       conducting electricity from a remote source to said battery for  
4       charging and for bringing said flywheel up to operating speed for  
5       starting the flywheel battery electric vehicle.